

ABSTRACT OF THE DISCLOSURE

A DC/DC converter which includes a switched mode power supply, such as a switched mode buck regulator, has gate driven switching devices. A flyback converter is provided for providing a gate drive voltage to the gate driven switching devices. The flyback converter increases or decreases an input voltage to provide the gate drive voltage. A programmable under voltage lockout circuit is provided for turning ON of the flyback converter if the input voltage is lower than a predetermined value. A plurality, n , of buck regulators are connected in parallel and are controlled by a common controller which provides pulse width modulation signals to each power stage which are shifted by $360^\circ/n$ from each other.